

# Linear measuring technology

|                               |                         |                                     |
|-------------------------------|-------------------------|-------------------------------------|
| <b>Draw-wire encoder D135</b> | <b>Performance-Line</b> | <b>Measuring length max. 42.5 m</b> |
|-------------------------------|-------------------------|-------------------------------------|



These draw-wire mechanics D135 can be used up to a measuring length of 42.5 meters. This draw-wire mechanics may be combined with the proven Kübler Sendix encoders with incremental or absolute interface, as well as with analog sensors.

With its compact construction, the D135 suits perfectly all measuring tasks from 8 up to 42.5 meters.

|               |  |           |             |  |
|---------------|--|-----------|-------------|--|
| Analog output |  |           |             |  |
|               |  | SAE J1939 | EtherNet/IP |  |

|   |                   |                              |                             |                             |                   |                              |
|---|-------------------|------------------------------|-----------------------------|-----------------------------|-------------------|------------------------------|
|   |                   |                              |                             |                             |                   |                              |
| Max. acceleration<br>140 m/s <sup>2</sup> | Long service life | Temperature<br>-20°C...+90°C | High protection level<br>IP | Reverse polarity protection | Integrated swivel | Interchangeable installation |

## Robust

- The titanium-anodized aluminum housing and the stainless steel wires allow for using the mechanics even in harsh conditions.
- Wear-free wire exit thanks to special plain bearing guide.
- Various wire types and wire fastenings.

## Versatile

- High traverse speed and high acceleration.
- Flexible mounting thanks to fastening tabs or fastening grooves.
- Various connection possibilities available.
- Interchangeable encoders (interchangeable installation).

## Order code with encoder (incremental, absolute)

|               |   |          |   |          |          |          |          |
|---------------|---|----------|---|----------|----------|----------|----------|
| <b>D8.4D1</b> | . | XXXX     | . | XX       | XX       | .        | XXXX     |
| Type          |   | <b>a</b> |   | <b>b</b> | <b>c</b> | <b>d</b> | <b>e</b> |

- a** Measuring range
- 0800 = 8 000 mm
  - 1000 = 10 000 mm
  - 1200 = 12 000 mm
  - 1500 = 15 000 mm
  - 2000 = 20 000 mm
  - 2500 = 25 000 mm
  - 3000 = 30 000 mm
  - 3500 = 35 000 mm
  - 4000 = 40 000 mm
  - 4250 = 42 500 mm

- b** Encoder used
- 00 = Sendix 5000, incremental
  - M3 = Sendix M5863, absolute
  - F3 = Sendix F5863, absolute
  - 63 = Sendix 5863, absolute
  - M8 = Sendix M5868, absolute
  - F8 = Sendix F5868 absolute
  - 68 = Sendix 5868, absolute

- c** Output circuit depends on the encoder used
- d** Type of connection depends on the encoder used
- e** Resolution / Protocol / Options depends on the encoder used

- Optional on request*
- Other measuring ranges
  - Cable diameter 1 mm
  - Other wire fastening
  - Modified cable and/or connector orientation
  - Modified cable outlet direction
  - Sensor protection level IP67
  - Improved linearity (0.02 %)

### Standard resolutions for draw-wire with incremental encoder Sendix 5000

|                           |        |        |        |
|---------------------------|--------|--------|--------|
| Drum circumference [mm]   | 333.33 | 333.33 | 333.33 |
| Pulses / revolution [ppr] | 1000   | 2000   | 4000   |
| Pulses / mm               | 3      | 6      | 12     |
| Resolution [mm]           | 0.33   | 0.17   | 0.08   |

### Standard resolutions for draw-wire with absolute encoder Sendix M5863 (12 bit ST) or M5868 (12 bit ST, programmable via bus)

|                           |        |
|---------------------------|--------|
| Drum circumference [mm]   | 333.33 |
| Pulses / revolution [ppr] | 4096   |
| Pulses / mm               | 12.3   |
| Resolution [mm]           | 0.08   |

# Linear measuring technology

## Draw-wire encoder D135

## Performance-Line

## Measuring length max. 42.5 m

### Recommended standard variants (with incremental, absolute encoder)

| Order no. draw-wire encoder | Mounted encoder                  | Interface                      | Power supply   | Type of connection       | Resolution / Protocol             | Option |
|-----------------------------|----------------------------------|--------------------------------|----------------|--------------------------|-----------------------------------|--------|
| D8.xD1.xxxx.0054.2000       | Sendix 5000 (8.5000.8354.2000)   | Push-pull with inverted signal | 10 ... 30 V DC | 1 x radial M12 connector | 2000 ppr                          | -      |
| D8.xD1.xxxx.M324.G222       | Sendix M5863 (8.M5863.3524.G222) | SSI                            | 10 ... 30 V DC | 1 x radial M12 connector | 4096 ppr / SSI-Gray-Code          | -      |
| D8.xD1.xxxx.M824.2122       | Sendix M5868 (8.M5868.3524.2122) | CANopen                        | 10 ... 30 V DC | 1 x radial M12 connector | CANopen encoder profil DS406 V4.0 | -      |

### Other variants (with absolute encoder)

| Order no. draw-wire encoder | Mounted encoder                  | Interface   | Power supply   | Type of connection       | Resolution / Protocol                  | Option                  |
|-----------------------------|----------------------------------|-------------|----------------|--------------------------|--|-------------------------|
| D8.xD1.xxxx.F326.G223       | Sendix F5863 (8.F5863.1226.G223) | SSI         | 10 ... 30 V DC | 1 x radial M12 connector | 4096 ppr / SSI-Gray-Code               | SET button + status LED |
| D8.xD1.xxxx.6326.G223       | Sendix 5863 (8.5863.1226.G223)   | SSI         | 10 ... 30 V DC | 1 x radial M12 connector | 4096 ppr / SSI-Gray-Code               | SET button + status LED |
| D8.xD1.xxxx.F82E.2123       | Sendix F5868 (8.F5868.122E.2123) | CANopen     | 10 ... 30 V DC | 1 x radial M12 connector | CANopen encoder profile DS406 V3.2     | SET button              |
| D8.xD1.xxxx.6822.2123       | Sendix 5868 (8.5868.1222.2123)   | CANopen     | 10 ... 30 V DC | 2 x radial M12 connector | CANopen encoder profile DS406 V3.2     | SET button              |
| D8.xD1.xxxx.M834.3222       | Sendix M5868 (8.M5868.3534.3222) | SAE J1939   | 10 ... 30 V DC | 1 x radial M12 connector | SAE J1939                              | -                       |
| D8.xD1.xxxx.M844.4122       | Sendix M5868 (8.M5868.3544.4122) | IO-Link     | 18 ... 30 V DC | 1 x radial M12 connector | IO-Link                                | -                       |
| D8.xD1.xxxx.6832.3113       | Sendix 5868 (8.5868.1232.3113)   | PROFIBUS    | 10 ... 30 V DC | 3 x radial M12 connector | Profibus-DP V0 encoder profile Class 2 | SET button              |
| D8.xD1.xxxx.68B2.B212       | Sendix 5868 (8.5868.12B2.B212)   | EtherCAT    | 10 ... 30 V DC | 3 x radial M12 connector | EtherCAT with CoE 3.2.10               | -                       |
| D8.xD1.xxxx.F8CN.C122       | Sendix F5868 (8.F5868.12CN.C122) | PROFINET IO | 10 ... 30 V DC | 3 x axial M12 connector  | PROFINET encoder profile version 4.2   | -                       |
| D8.xD1.xxxx.F8AN.A222       | Sendix F5868 (8.F5868.12AN.A222) | EtherNet/IP | 10 ... 30 V DC | 3 x axial M12 connector  | EtherNet/IP                            | -                       |

### Order code with encoder (analog, scalable with limit switch function)

D8.4D1 . XXXX . M1XX . XXXX

Type                      a                      b c d                      e

#### a Measuring range

0800 = 8 000 mm  
 1000 = 10 000 mm  
 1200 = 12 000 mm  
 1500 = 15 000 mm  
 2000 = 20 000 mm  
 2500 = 25 000 mm  
 3000 = 30 000 mm  
 3500 = 35 000 mm  
 4000 = 40 000 mm  
 4250 = 42 500 mm

#### b Encoder used

M1 = Sendix M5861, absolute <sup>1)</sup>

#### c Output circuit

depends on the encoder used

#### d Type of connection

depends on the encoder used

#### e Resolution / Protocol / Options

depends on the encoder used

#### Optional on request

- Other measuring ranges
- Cable diameter 1 mm
- Other wire fastening  
M4 thread, eyelet or carabiner ring
- Modified cable and/or connector orientation
- Modified cable outlet direction
- Sensor protection level IP67

### Recommended standard variants (with encoder analog, scalable with limit switch function)

| Order no. draw-wire encoder | Mounted encoder                  | Interface           | Power supply   | Type of connection   | Resolution / Protocol | Option   |
|-----------------------------|----------------------------------|---------------------|----------------|----------------------|-----------------------|--|
| D8.xD1.xxxx.M134.3612       | Sendix M5861 (8.M5861.3534.3612) | Analog, 4 ... 20 mA | 10 ... 30 V DC | radial M12 connector | 12 Bit / 4 ... 20 mA  | scalable without limit switch function <sup>2)</sup> |
| D8.xD1.xxxx.M144.4612       | Sendix M5861 (8.M5861.3544.4612) | Analog, 0 ... 10 V  | 15 ... 30 V DC | radial M12 connector | 12 Bit / 0 ... 10 V   | scalable without limit switch function <sup>2)</sup> |
| D8.xD1.xxxx.M134.3512       | Sendix M5861 (8.M5861.3534.3512) | Analog, 4 ... 20 mA | 10 ... 30 V DC | radial M12 connector | 12 Bit / 4 ... 20 mA  | scalable with limit switch function <sup>3)</sup>    |
| D8.xD1.xxxx.M144.4512       | Sendix M5861 (8.M5861.3544.4512) | Analog, 0 ... 10 V  | 15 ... 30 V DC | radial M12 connector | 12 Bit / 0 ... 10 V   | scalable with limit switch function <sup>3)</sup>    |

1) With ccw option.

2) Delivery condition: scaled to measuring range.  
 Description for scaling and limit switch function see data sheet M5861.


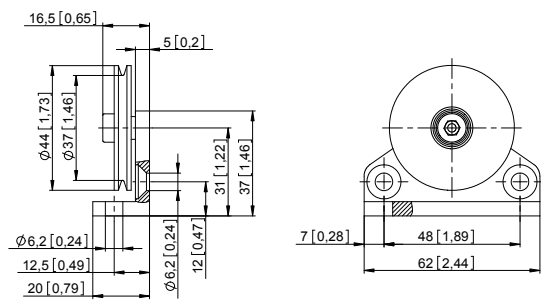

3) Delivery condition: unscaled.

Description for scaling and limit switch function see data sheet M5861.

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|  |  |   |
|--|--|---|
| <b>Order code with analog sensor (scaled to measuring range)</b> |  | <b>D8.3D1 . XXXX . XXX X . 0000</b>                 |
|  |  | Type      a      b      c                           |
| <b>a Measuring range</b>   | <b>b Analog sensor output / supply voltage</b> | <b>Optional on request</b>                          |
| 0800 = 8 000 mm  | A11 = 4 ... 20 mA / 12 ... 30 V DC             | - Other measuring ranges                            |
| 1000 = 10 000 mm   | A22 = 0 ... 10 V / 12 ... 30 V DC              | - Cable diameter 1 mm                               |
| 1200 = 12 000 mm   | A33 = potentiometer 1 kΩ / max. 30 V DC        | - Other wire fastening                              |
| 1500 = 15 000 mm   |  | M4 thread, eyelet or carabiner ring                 |
| 2000 = 20 000 mm   |  | - Modified cable and/or connector orientation       |
| 2500 = 25 000 mm   |  | - Modified cable outlet direction                   |
| 3000 = 30 000 mm   |  | - Sensor protection level IP67                      |
| 3500 = 35 000 mm   |  | - Increased temperature range -40 °C ... +85 °C and |
| 4000 = 40 000 mm   |  | -20 °C ... +120 °C                                  |
| 4250 = 42 500 mm   |  |   |
|  | <b>c Type of connection</b>                    |   |
|  | 1 = axial cable, 2 m [6.56'] PVC               |   |
|  | 3 = axial M12 connector, 4-pin                 |   |

| Accessories for draw-wire encoder  | Dimensions in mm [inch]   | Order no.   |   |
|--|---|---|---|
| <b>Guide pulley</b><br>                          | <b>Technical data:</b><br>- mounting bracket (anodized alum.)<br>- guide pulley (plastic POM)<br>- ball bearing (type 696-2R5)  | <b>Scope of delivery:</b><br>- 2 x countersunk screws for lateral fixing<br>- 2 x hexagonal screws for fixing on a flat surface | <b>8.0000.7000.0045</b>   |
|   |   |   |   |
| <b>Extension cable</b> (further on request)<br> | 0.5 m with clip<br>1.0 m with clip<br>2.0 m with clip   |   | <b>8.0000.7000.0051</b><br><b>8.0000.7000.0052</b><br><b>8.0000.7000.0054</b> |
| <b>Cables and connectors</b>   |   | Order no.   |   |
| <b>Preassembled cables</b>   | M12 female connector with coupling nut, 5-pin, A coded, straight single ended<br>2 m [6.56'] PVC cable  | <b>05.00.6081.2211.002M</b>   |   |
|  | M12 male connector with external thread, 4-pin, D coded, straight single ended<br>2 m [6.56'] PUR cable   | <b>05.00.6031.4411.002M</b>   |   |
| <b>Connectors</b>  | M12 female connector with coupling nut, 5-pin, A coded, straight (metal)<br>M12 female connector with coupling nut, 5-pin, A coded, straight (metal/plastic)<br>M12 female connector with coupling nut, 5-pin, A coded, right-angle (plastic) | <b>8.0000.5116.0000</b><br><b>05.B-8151-0/9</b><br><b>05.B-8251-0/9</b>   |   |

Further Kübler cables and connectors can be found at: [kuebler.com/connection-technology](http://kuebler.com/connection-technology)

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## Technical data

| Mechanical characteristics (draw-wire mechanics) |  |   |                     |                      |                                  |        |
|--|--|---|---------------------|----------------------|----------------------------------|--------|
| Measuring range                                  | 8000 mm  | 10000 mm<br>12000 mm<br>15000 mm  | 20000 mm            | 25000 mm<br>30000 mm | 35000 mm<br>40000 mm<br>42500 mm |        |
| Extension force                                  | $F_{min}$  | 7.2 N   | 8.7 N               | 7.0 N                | 7.3 N                            | 7.0 N  |
|  | $F_{max}$  | 16.0 N  | 16.9 N              | 12.4 N               | 15.7 N                           | 14.1 N |
| Speed max.                                       | 10 m/s   | 6 m/s   | 5 m/s               | 5 m/s                | 5 m/s                            |        |
| Acceleration max.                                | 140 m/s <sup>2</sup>                                   | 80 m/s <sup>2</sup>   | 60 m/s <sup>2</sup> | 60 m/s <sup>2</sup>  | 60 m/s <sup>2</sup>              |        |
| Linearity  | with analog output                                     | ±0.1 % (of the measuring range)   |                     |                      |                                  |        |
|  | with encoder   | ±0.05 % (of the measuring range)  |                     |                      |                                  |        |
|  |  | ±0.02 % (of the measuring range) <sup>1)</sup>  |                     |                      |                                  |        |
| Weight   | depending on the measuring and the sensor/encoder used |   |                     |                      |                                  |        |
| Material   | housing  | titanium-anodized aluminum  |                     |                      |                                  |        |
|  | wire   | stainless steel ø 0.5 mm (ø 1 mm can be supplied as a special up to measuring range 20000 mm) |                     |                      |                                  |        |
| Protection acc. to EN 60529                      | IP65 (sensor)  |   |                     |                      |                                  |        |

## Electrical characteristics (analog sensor, scaled to measuring range)

| Version                     | A22  | A11  | A33  |
|-----------------------------|--|--|--|
| Analog output               | 0 ... 10 V   | 4 ... 20 mA  | potentiometer  |
| Output                      | 0 ... 10 V / galv. isolated, 4 conductors            | 4 ... 20 mA / 2 conductors                           | 1 kΩ   |
| Supply voltage              | 12 ... 30 V DC                                       | 12 ... 30 V DC                                       | max. 30 V DC   |
| Recommended slider current  | –  | –  | < 1 μA   |
| Max. current consumption    | 22.5 mA (no load)                                    | 50 mA  | –  |
| Reverse polarity protection | yes  | yes  | –  |
| Working temperature         | -20 °C ... +85 °C [-4 °F ... +185 °F]                | -20 °C ... +85 °C [-4 °F ... +185 °F]                | -20 °C ... +85 °C [-4 °F ... +185 °F]                |
|                             | -40 °C ... +85 °C [-40 °F ... +185 °F] <sup>2)</sup> | -40 °C ... +85 °C [-40 °F ... +185 °F] <sup>2)</sup> | -40 °C ... +85 °C [-40 °F ... +185 °F] <sup>2)</sup> |
|                             |  |  | -20 °C ... +120 °C [-4 °F ... +248 °F] <sup>2)</sup> |

## Electrical characteristics (digital output)

The electrical characteristics of the draw-wire mechanics with digital output can be found in the data sheets of the encoders.

## Approvals

|  |            |
|--|------------|
| <b>CE compliant</b> in accordance with |            |
| EMC Directive                          | 2014/30/EU |
| RoHS Directive                         | 2011/65/EU |

1) On request for encoder version: 00, F3, G3, F8, G8 (see order code ).

2) Optional on request

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|                               |                         |                                     |
|-------------------------------|-------------------------|-------------------------------------|
| <b>Draw-wire encoder D135</b> | <b>Performance-Line</b> | <b>Measuring length max. 42.5 m</b> |
|-------------------------------|-------------------------|-------------------------------------|

## Terminal assignment (analog sensor)

| Analog sensor <b>A11</b><br>(4 ... 20 mA) |                      |      | R/I converter       |             |      |                  |  |      |
|---|----------------------|------|---------------------|-------------|------|------------------|--|------|
|   |                      |      | Signal:             | +V          | n.c. | I <sub>out</sub> |  | n.c. |
|   |                      |      | Cable <sup>1)</sup> | Core color: | BN   | WH               |  | BU   |
|   | M12 connector, 4-pin | Pin: | 1                   | 2           | 3    | 4                |  |      |

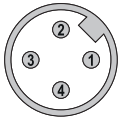
  

| Analog sensor <b>A22</b><br>(0 ... 10 V DC) |                      |      | R/U converter       |             |                  |     |  |                    |
|---|----------------------|------|---------------------|-------------|------------------|-----|--|--------------------|
|   |                      |      | Signal:             | +V          | U <sub>out</sub> | 0 V |  | 0 V <sub>out</sub> |
|   |                      |      | Cable <sup>1)</sup> | Core color: | BN               | WH  |  | BU                 |
|   | M12 connector, 4-pin | Pin: | 1                   | 2           | 3                | 4   |  |                    |

| Analog sensor <b>A33</b><br>(Potentiometer 1 kΩ) |                      |      | Potentiometer       |             |     |     |  |      |
|--|----------------------|------|---------------------|-------------|-----|-----|--|------|
|  |                      |      | Signal:             | +V          | Out | 0 V |  | n.c. |
|  |                      |      | Cable <sup>1)</sup> | Core color: | BN  | WH  |  | BU   |
|  | M12 connector, 4-pin | Pin: | 1                   | 2           | 3   | 4   |  |      |

## Top view of mating side, male contact base



M12 connector, 4-pin

1) Isolate unused cores individually before initial start-up

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**Draw-wire encoder D135**

**Performance-Line**

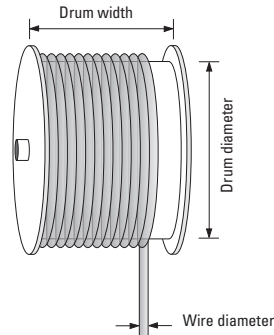
**Measuring length max. 42.5 m**

## Technology in detail

### Operating principle

#### Construction

The core of a draw-wire device is a drum mounted on bearings, onto which a wire is wound. Winding takes place via a spring-loaded device.



#### Note

Exceeding the maximum extension length of the draw-wire will lead to damage to the wire and the mechanics.

### Wire fastenings

Clip  
D8.xx1.xxxx.xxxx



M4 thread  
D8.xxA.xxxx.xxxx



Eyelet  
D8.xxJ.xxxx.xxxx



Carabiner ring  
D8.xxM.xxxx.xxxx



ball-bearing swivel  
(no torsion of the measuring wire during installation)

rubber stopper

measuring wire

### Wire types

- V2A,  $\varnothing$  0.5 mm (standard)
- Optional on request:
  - V4A,  $\varnothing$  0.51 mm
  - Coramid,  $\varnothing$  0.6 mm
  - V4A plastic coated, 1.0 mm (V4A =  $\varnothing$  0.81 mm)

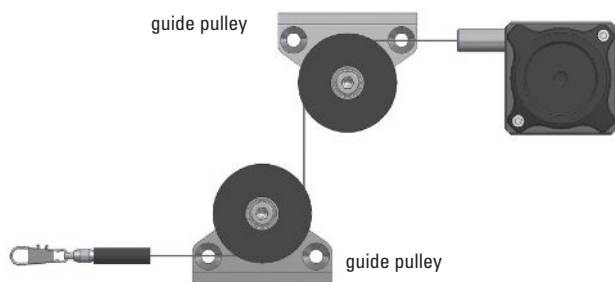


### Extension wire

For optimum use of the measuring range by extending the wire length, e. g. to allow realizing a pre-extension in the application. Especially combined with analog interfaces.



### Application-specific installation possibilities

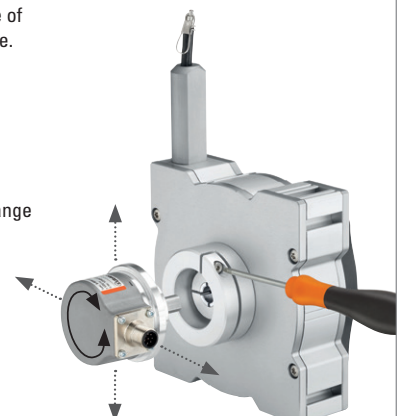


### Interchangeable installation

Easy adjustment of the connector or cable orientation. Exchange of individual components possible.

- Requirements for encoders:
- clamping flange  $\varnothing$  58 mm
  - shaft 10 x 20 mm

All versions from measuring range 10 000 mm as interchangeable installation (D8.4Dx.xxxx.xxxx).  
Version with measuring range 8 000 mm as interchangeable installation (D8.2Dx.0800.xxxx) and as fixed installation (D8.4Dx.0800.xxxx).

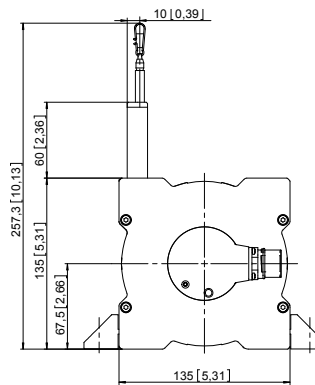
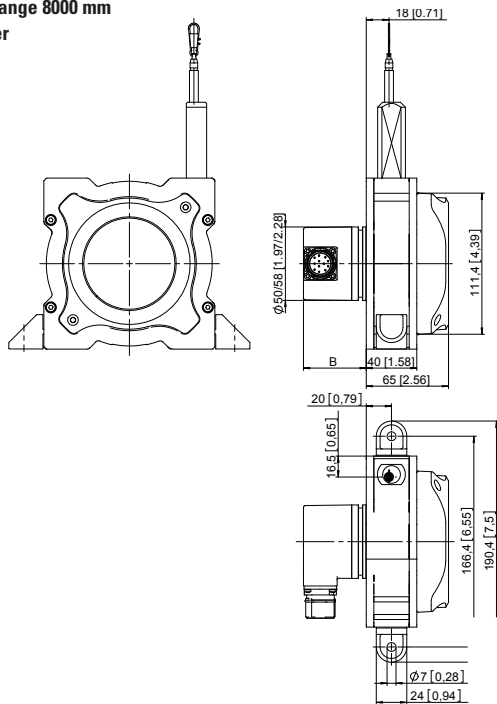


**Draw-wire encoder D135**      **Performance-Line**      **Measuring length max. 42.5 m**

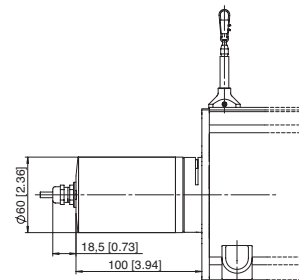
## Dimensions

Dimensions in mm [inch]

**Draw-wire mechanics,  
measuring range 8000 mm  
with encoder**



with analog output



Dimension B depends on the encoder used

| Encoder                              |                       | B           |
|--------------------------------------|-----------------------|-------------|
| Sendix incremental (5000)            | D8.4D1.xxxx.00xx.xxxx | 37.0 [1.46] |
| Sendix absolute (F5863)              | D8.4D1.xxxx.F3xx.xxxx | 49.5 [1.95] |
| Sendix absolute (5863)               | D8.4D1.xxxx.63xx.xxxx | 49.5 [1.95] |
| Sendix absolute (F5868, CANopen)     | D8.4D1.xxxx.F8xx.21xx | 70.0 [2.76] |
| Sendix absolute (F5868, EtherNet/IP) | D8.4D1.xxxx.F8xx.A2xx | 59.5 [2.34] |
| Sendix absolute (5868)               | D8.4D1.xxxx.68xx.xxxx | 77.2 [3.04] |
| Sendix absolute (M586x)              | D8.4D1.xxxx.Mxxx.xxxx | 49.8 [1.96] |

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## Draw-wire encoder D135

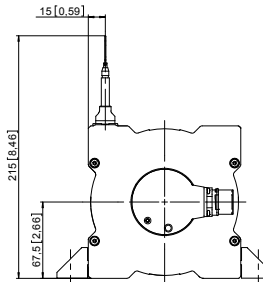
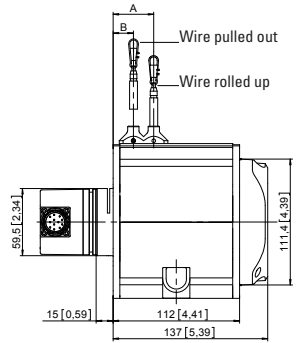
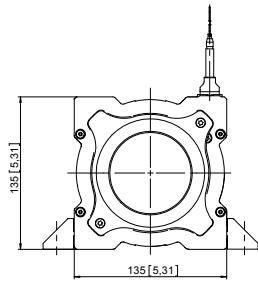
## Performance-Line

## Measuring length max. 42.5 m

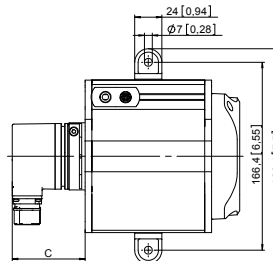
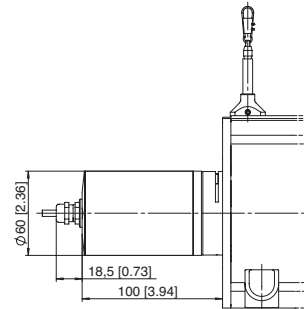
### Dimensions

Dimensions in mm [inch]

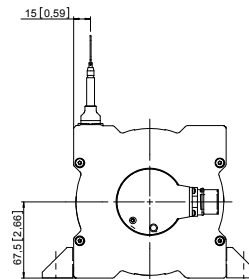
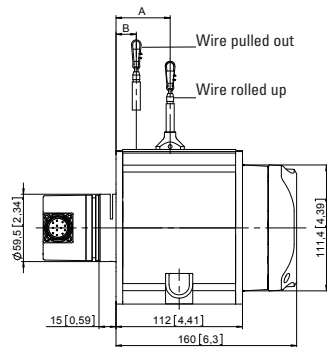
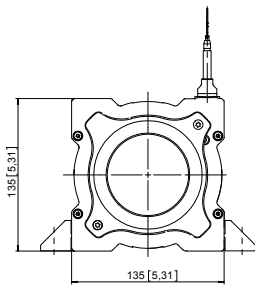
#### Draw-wire mechanics, measuring range 10000 - 12000 mm with encoder



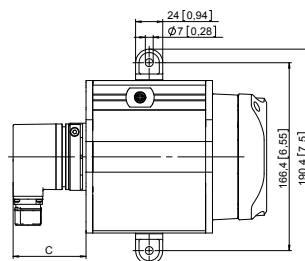
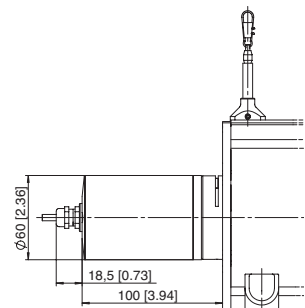
#### with analog output



#### Draw-wire mechanics, measuring range 15000 - 20000 mm with encoder



#### with analog output



| Measuring range | A - Wire rolled up | B - Wire pulled out |
|-----------------|--------------------|---------------------|
| 10000 mm        | 33 [1.30]          | 18 [0.71]           |
| 12000 mm        | 36 [1.42]          | 18 [0.71]           |
| 15000 mm        | 41 [1.61]          | 18 [0.71]           |
| 20000 mm        | 48 [1.89]          | 18 [0.71]           |

Dimension C depends on the encoder used

| Encoder                              |                       | C            |
|--------------------------------------|-----------------------|--------------|
| Sendix incremental (5000)            | D8.4D1.xxxx.00xx.xxxx | 60.0 [2.36]  |
| Sendix absolute (F5863)              | D8.4D1.xxxx.F3xx.xxxx | 72.5 [2.85]  |
| Sendix absolute (5863)               | D8.4D1.xxxx.63xx.xxxx | 72.5 [2.85]  |
| Sendix absolute (F5868, CANopen)     | D8.4D1.xxxx.F8xx.21xx | 93.0 [3.66]  |
| Sendix absolute (F5868, EtherNet/IP) | D8.4D1.xxxx.F8xx.A2xx | 82.5 [3.25]  |
| Sendix absolute (5868)               | D8.4D1.xxxx.68xx.xxxx | 100.2 [3.94] |
| Sendix absolute (M586x)              | D8.4D1.xxxx.Mxxx.xxxx | 72.8 [2.87]  |

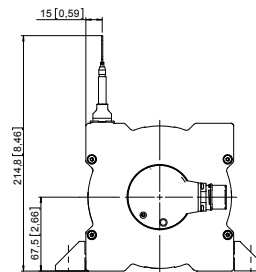
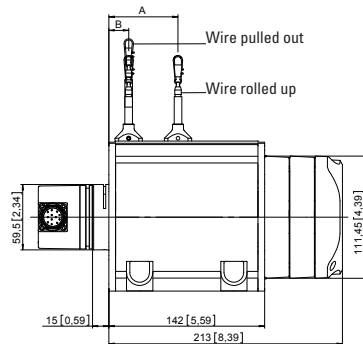
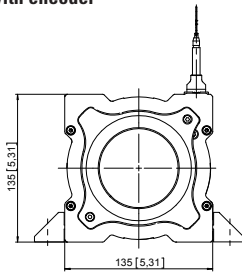
# Linear measuring technology

## Draw-wire encoder D135 Performance-Line Measuring length max. 42.5 m

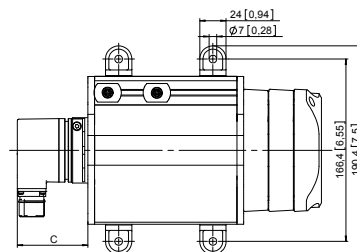
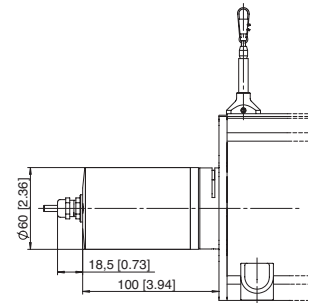
### Dimensions

Dimensions in mm [inch]

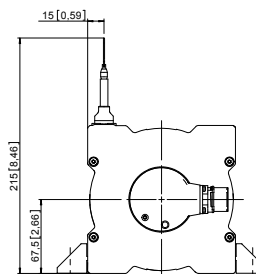
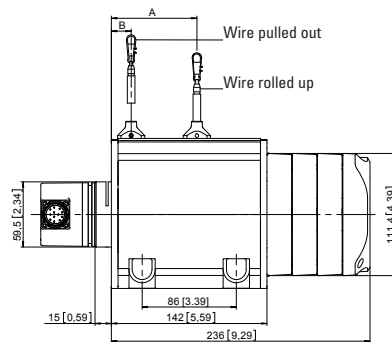
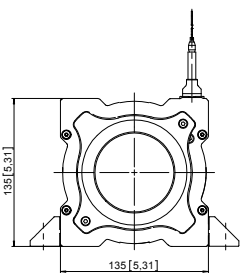
#### Draw-wire mechanics, measuring range 25000 - 30000 mm with encoder



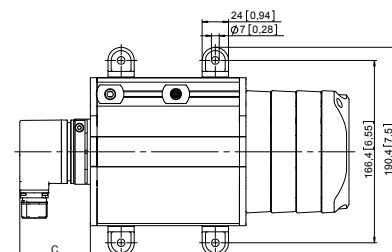
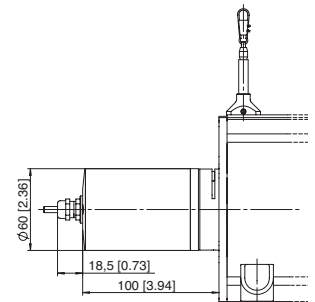
#### with analog output



#### Draw-wire mechanics, measuring range 35000 - 42500 mm with encoder



#### with analog output



| Measuring range | A - Wire rolled up | B - Wire pulled out |
|-----------------|--------------------|---------------------|
| 25000 mm        | 56 [2.02]          | 18 [0.71]           |
| 30000 mm        | 63 [2.48]          | 18 [0.71]           |
| 35000 mm        | 71 [2.80]          | 18 [0.71]           |
| 40000 mm        | 78 [3.07]          | 18 [0.71]           |
| 42500 mm        | 82 [3.23]          | 18 [0.71]           |

| Dimension C depends on the encoder used |                       |              |
|---|-----------------------|--------------|
| Encoder                                 |                       | C            |
| Sendix incremental (5000)               | D8.4D1.xxxx.00xx.xxxx | 60.0 [2.36]  |
| Sendix absolute (F5863)                 | D8.4D1.xxxx.F3xx.xxxx | 72.5 [2.85]  |
| Sendix absolute (5863)                  | D8.4D1.xxxx.63xx.xxxx | 72.5 [2.85]  |
| Sendix absolute (F5868, CANopen)        | D8.4D1.xxxx.F8xx.21xx | 93.0 [3.66]  |
| Sendix absolute (F5868, EtherNet/IP)    | D8.4D1.xxxx.F8xx.A2xx | 82.5 [3.25]  |
| Sendix absolute (5868)                  | D8.4D1.xxxx.68xx.xxxx | 100.2 [3.94] |
| Sendix absolute (M586x)                 | D8.4D1.xxxx.Mxxx.xxxx | 72.8 [2.87]  |